

SECTION CC-1 NSN/ITEM DESCRIPTION

PCR-N-0001 NOODLES IN BUTTER FLAVORED SAUCE, PACKAGED IN A FLEXIBLE POUCH, SHELF STABLE

Each component is consumed by combat personnel under worldwide environmental extremes as part of an operational ration, which is the sole source of nutritional intake. It is essential that this item be produced in accordance with good commercial practice to attain high standards of appearance, odor, flavor, and texture so that high levels of troop acceptance are achieved.

C-2 PERFORMANCE REQUIREMENTS

A. First article. A sample shall be subjected to first article inspection in accordance with the tests and inspections of Section E of this Performance-based Contract Requirements.

B. Commercial sterility. The packaged food shall be processed until commercially sterile.

C. Shelf life. The packaged food shall meet the minimum shelf life requirement of 36 months at 80°F.

D. Appearance.

* (1) Noodles. The cooked noodles shall be enriched, fettuccini type egg noodles and shall be approximately 4.0 inches in length. The cooked noodles shall be distinct strips that readily separate. The cooked noodles shall be off white to pale yellow in color.

(2) Sauce. The sauce shall be glossy and semi transparent and shall be pale yellow in color.

(3) General. There shall be some unabsorbed free sauce.

E. Odor and flavor.

(1) General. The packaged food shall have an odor and flavor characteristic of processed noodles in butter flavored sauce.

(2) Foreign. The packaged food shall be free from foreign odors and flavors such as, but not limited to, burnt, scorched, rancid, sour, or stale.

F. Texture.

(1) Noodles. The cooked noodles shall be tender and shall not be soft, mushy or pasty.

(2) Sauce. The sauce shall be smooth and moderately thick.

SECTION C CONTINUEDG. Weight.

(1) Net weight. The average net weight shall be not less than 5.0 ounces. No individual pouch shall contain less than 4.5 ounces.

(2) Drained weight. The average drained weight of the noodles shall be not less than 3.5 ounces. The drained weight of the noodles in an individual pouch shall be not less than 3.0 ounces.

H. Palatability. The finished product shall be equal to or better than the approved first article, when applicable, or other approved model in palatability and overall appearance.

* I. Nutrient content.

(1) Fat content. The fat content shall be not greater than 8.5 percent.

(2) Salt content. The salt content shall be not greater than 1.4 percent.

C-3 MISCELLANEOUS INFORMATION

A. Ingredients and formulation. Ingredients and formulation percentages may be as follows:

(1) <u>Sauce</u>	<u>Ingredients</u>	<u>Percent by weight</u>
	Water	83.728
	Margarine	12.000
	Starch, waxy maize, modified	2.500
	Salt	1.550
	Pepper, white, ground	0.120
	Garlic powder	0.100
	Color, annatto 1/	0.002

1/ The total color shall be (as % norbixin) shall be 15 percent.

(2) <u>Product</u>	<u>Ingredients</u>	<u>Percent by weight</u>
	Sauce	68.00
	Noodles, blanched <u>1/</u>	32.00

1/ The percent by weight of the blanched noodles was based on the weight of the noodles after blanching to 2 times the dry weight, rinsing and cooling.

SECTION DD-1 PACKAGING

A. Product shall be filled into pouches and the pouches shall be filled into cartons. Both shall meet the requirements of Section 3 and Figures 1 and 2 of MIL-PRF-44073. Verification testing and inspection of pouch and carton conformance to the requirements shall be by the testing and inspections of Section 4 of MIL-PRF-44073 and the Quality Assurance Provisions of Section E of this Performance-based Contract Requirements.

D-2 LABELING

A. Pouches. Each pouch shall be clearly printed or stamped, in a manner that does not damage the pouch, with permanent black ink or any other contrasting color, which is free of carcinogenic elements or ingredients. To avoid erroneous marking of pouches, the product name, lot number and filling equipment number shall be applied prior to thermal processing. All other marking may be applied before or after thermal processing.

(1) Product name (1/8 to 7/16 inch block letters). Commonly used abbreviations may be used when authorized by the inspection agency.

- (2) Pouch code includes: 1/
Lot Number
Filling equipment identification number
Official establishment number (for example, EST-38) (applicable to class 1 and 3 only)
Retort identification number
Retort cook number

1/ Shall be code marked as follows: The lot number shall be expressed as a four digit Julian code. The first digit shall indicate the year of production and the next three digits shall indicate the day of the year (Example, July 1, 1997 would be coded as 7182). The Julian code shall represent the day the product was packaged into the pouch and processed. Sub-lotting (when used) shall be represented by an alpha character immediately following the four digit Julian code. Following the four digit Julian code and the alpha character (when used), the other required code information shall be printed in the sequence as listed above. For food products that do not require an establishment number, the Julian code shall be preceded by three capital letters, which represent the packer's name.

B. Cartons.

* (1) The cartons shall be clearly printed on one of the largest panels with permanent black ink as follows:

Product name (7/32 to 9/32 inch block letters).
Ingredients.
Net weight.
Name and address of packer.
Code (same as pouch code, see pouches). 1/ 2/

SECTION D CONTINUED

* USDA approval stamp for the packers plant (applicable to meat and poultry items only). "Nutrition Facts" label in accordance with the Nutrition Labeling and Education Act (NLEA) and all applicable FDA/USDA regulations.

1/ Code may be ink printed or embossed on the outside of any other panel except the largest panels of the carton.

2/ Official establishment number not required in carton code.

* (2) Military nutrition information entitled "Nutrition: A FORCE MULTIPLIER" shall be printed on the large carton panel opposite to the panel with the data in D-2,B(1). The information, provided by the contracting officer, shall be clearly printed with permanent black ink in an area no smaller than 4-1/4 inches by 6-3/4 inches.

D-3 PACKING

A. Packing for shipment to ration assembler. Seventy-two pouches (of the same product) in cartons shall be packed flat or on edge in a snug-fitting fiberboard shipping container conforming to style RSC, type CF, class domestic, grade 200 of ASTM D 5118, Standard Practice for Fabrication of Fiberboard Shipping Boxes. Each container shall be securely closed in accordance with ASTM D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers.

D-4 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with DPSC Form 3556, Marking Instructions for Shipping Cases, Sacks and Palletized/Containerized Loads of Perishable and Semiperishable Subsistence.

SECTION E INSPECTION AND ACCEPTANCEE-6 QUALITY ASSURANCE PROVISIONSDefinitions.

(1) Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending on the item; or a defect that judgment and experience indicate is likely to prevent the performance of the major end item, i.e., the consumption of the ration.

(2) Major defect. A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

(3) Minor defect. A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

SECTION E CONTINUEDQuality Assurance Provisions.

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes, are recommended.

A. Classification of inspections. The inspection requirements specified herein are classified as follows:

(1) First article inspection. The first article shall be inspected in accordance with the provisions of this Performance-based Contract Requirements and evaluated for overall appearance and palatability. Any failure to conform to the performance requirements or any appearance or palatability failure shall be cause for rejection of the first article.

(2) Conformance inspection. Conformance inspection shall include the product examination and the methods of inspection cited in this section.

* B. Product examination. The finished product shall be examined for compliance with the performance requirements specified in Section C of this Performance-based Contract Requirements utilizing the double sampling plans indicated in ANSI/ASQC Z1.4 - 1993. The lot size shall be expressed in pouches. The sample unit shall be the contents of one pouch. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects. Defects and defect classifications are listed in Table I. For drained weight inspection, a separate set of pouches shall be selected from the lot using the same sampling criteria as above. The pouches shall be immersed in 140°F to 190°F water for 10 minutes prior to the drained weight inspection.

TABLE I. Product defects 1/ 2/ 3/		
Category		Defect
<u>Major</u>	<u>Minor</u>	
<u>Appearance</u>		
101		Cooked noodles not distinct strips that readily separate
102		Color of cooked noodles not off white to pale yellow
	201	Color of sauce not glossy semi transparent or not pale yellow
	202	Lack of unabsorbed free sauce
<u>Odor and flavor</u>		
103		Odor or flavor not characteristic of processed noodles in butter flavored sauce
<u>Texture</u>		
	203	Noodles not tender or are soft, mushy or pasty
	204	Sauce not smooth or not moderately thick

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		TABLE I. Product defects 1/ 2/ 3/ (cont'd)		
Category		Defect		
<u>Major</u>	<u>Minor</u>			
		<u>Weight</u>		
	205	Net weight of an individual pouch less than 4.5 ounces <u>4/</u>		
	206	Drained weight of noodles in an individual pouch less than 3.0 ounces <u>5/</u>		

1/ Presence of any foreign odors and flavors such as, but not limited to burnt, scorched, rancid, sour, or stale shall be cause for rejection of the lot.

2/ Finished product not equal to or better than the approved first article, when applicable, or other approved model in palatability and overall appearance shall be cause for rejection of the lot.

3/ Type and size requirements for cooked noodles shall be verified by certificate of conformance.

4/ If the sample average net weight is less than 5.0 ounces, the lot shall be rejected.

5/ If the sample average drained weight of noodles is less than 3.5 ounces, the lot shall be rejected.

C. Methods of inspection.

(1) Commercial sterility. Testing for commercial sterility shall be in accordance with MIL-PRF-44073E.

* (2) Shelf life. The contractor shall provide a certificate of conformance that the product has a 3 year shelf life when stored at 80°F. Government verification may include storage for 6 months at 100°F or 36 months at 80°F. Upon completion of either storage period, the product will be subjected to a sensory evaluation panel for appearance and palatability and must receive an overall score of 5 or higher based on a 9 point hedonic scale to be considered acceptable.

(3) Net weight. The net weight of the filled and sealed pouches shall be determined by weighing each sample unit on a suitable scale tared with a representative empty pouch. Results shall be reported to the nearest 0.1 ounce.

(4) Drained weight. The contents of the pouch shall be poured into a flat-bottom container. A minimum of three times the volume of the pouch of 180°F to 190°F water shall be added to the container so as to cover the contents. The contents and water shall be gently agitated so as to liquefy rendered fat and to remove the sauce without breaking the noodles. The contents shall then be poured into a U.S. Standard No. 7 sieve in a manner that will distribute the product over the sieve without breaking the noodles.

The sieve area shall be such that the distributed product does not completely cover all the openings of the sieve. The sieve shall be tilted at approximately a 45° angle and allowed to drain for 2 minutes before

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determining the drained weight by subtracting the sieve tare weight from the gross weight. The drained weight shall be reported to the nearest 0.1 ounce.

* (5) Nutrient content. The sample to be analyzed shall be a composite of eight filled and sealed pouches which have been selected at random from the lot. The composited sample shall be prepared and analyzed for fat content and salt content in accordance with the following methods of the Official Methods of Analysis of AOAC International:

<u>Test</u>	<u>Method Number</u>
Fat	960.39, 985.15
Salt	935.47

SECTION J REFERENCE DOCUMENTS

DPSC FORM

DPSC FORM 3556 Marking Instructions for Shipping Cases, Sacks and
Palletized/Containerized Loads of Perishable and Semiperishable
Subsistence, May 96

FEDERAL SPECIFICATION

FED-STD-595 - Colors Used in Government Procurement

MILITARY SPECIFICATION

MIL-PRF-44073 - Packaging of Food in Flexible Pouches

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 1974 - Standard Practice for Methods of Closing, Sealing, and
Reinforcing Fiberboard Shipping Containers

D 3985 - Oxygen Gas Transmission Rate Through Plastic Film and
Sheeting Using a Coulometric Sensor

D 5118 - Standard Practice for Fabrication of Fiberboard Shipping
Boxes

F 372 - Standard Test Method for Water Vapor Transmission of Flexible
Barrier Materials Using an Infrared Detection Technique

ANSI/ASQCZ1.4-1993 - Sampling Procedures and Tables for Inspection by
Attributes

AOAC INTERNATIONAL - Official Methods of Analysis of the AOAC
International

AMSSB-RCF-FN (Valvano/4259)

8 April 2002

TO: DSCP-HRAA (LeCollier/3625)

Subject: (ES02-105) Technical Inquiry; Various MRE Documents (listing below); Clarify Carton labeling information

Ref: Quality Summit Mar 13, 2002, Industry One on One Sessions.

1. Based on discussions at referenced meeting, the U.S. Army Soldier and Biological Chemical Command, Soldier Systems Center (SBCCOM) has decided to clarify the carton labeling information since the requirement as written has been misinterpreted.

2. SBCCOM requests that DSCP implement the following change to the listed subject documents for all current, pending and future procurements until the documents are formally amended or revised:

In Section D, D-2 Labeling, B Cartons: Delete Footnote 1 entirely and insert:

"1/ Code may be ink printed on any outside carton panel. Code may be embossed on any outside carton panel except the largest panels of the carton."

3. The affected MRE entrée related documents are as follows:

Clam Chowder, New England style, Pouch	PCR-C-045	25 Oct 01
Pork Rib, Boneless, Imitation, Pouch	PCR-P-028	25 Oct 01
Fruits, Wet Pack, Pouch	PCR-F-002A	24 Oct 01
Vegetable Manicotti, Pouch	PCR-V-002	24 Oct 01
Beef Roast w/Vegetables, Pouch	PCR-B-035	24 Oct 01
Chili and Macaroni, Pouch	PCR-C-027	15 Nov 00
Beef Stew, Pouch	PCR-B-020	15 Nov 00
Beef Ravioli in Meat Sauce, Pouch	PCR-B-021	15 Nov 00
Beef w/Mushrooms in Sauce, Pouch	PCR-B-022	15 Nov 00
Beef Patty, Grilled, Pouch	PCR-B-029	15 Nov 00
Beefsteak, Grilled w/Mushroom Gravy, Pouch	PCR-B-030	15 Nov 00
Pork Chop, Jamaican, Pouch	PCR-P-012	15 Nov 00
Seafood Tortellini, Pouch	PCR-S-011	15 Nov 00
Turkey Breast, in Gravy w/Potatoes, Pouch	PCR-T-004	15 Nov 00
Country Captain Chicken, Pouch	PCR-C-019A	31 Jul 00
Jambalaya w/Ham & shrimp, Pouch	PCR-J-001	30 Sep 99
Beef Enchilada in Sauce, Pouch	PCR-B-010 (1)	30 Sep 99
Potatoes, Mashed, Pouch	PCR-P-011	30 Sep 99
Black Bean and Rice Burrito, Pouch	PCR-B-0002	17 Dec 97
Spaghetti w/Meat Sauce, Pouch	PCR-S-0002	5 Nov 97
Pork Chow Mein, Pouch	PCR-P-0002	5 Nov 97
Chicken and Rice, Pouch	PCR-C-0005	5 Nov 97
Chicken Stew, Pouch	PCR-C-0006	5 Nov 97
Beef Frankfurters, Pouch	PCR-B-0003	5 Nov 97
Pasta w/Vegetables in Cheese Sauce, Pouch	PCR-P-0001	22 Sep 97
Noodles, Buttered, Pouch	PCR-N-0001	22 Sep 97
Meatloaf w/Gravy, Pouch	PCR-M-0001	22 Sep 97

Chicken Breast w/Salsa, Pouch	PCR-C-0002	22 Sep 97
Chicken Breast in Thai Sauce, Pouch	PCR-C-0003	22 Sep 97
Beef in Teriyaki Sauce w/Vegetables, Pouch	PCR-B-0001	22 Sep 97
Apple Slices in Spice Sauce, Pouch	PCR-A-0001	4 Apr 97

4. Several MRE related component documents, i.e. breads, cakes, cookies, do not require a carton.

5. Several MRE entrée related documents from the Oct 1998 time frame did not contain the specific labeling of pouches and cartons inclusively. They referenced MIL-PRF-44073 in the Section D requirements.

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6. Therefore, SBCCOM requests that DSCP implement the following change to the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073E Packaging of Foods in Flexible Pouches for all current and pending procurements until the document is formally amended or revised:

In III, A, 1 Labeling and marking, b, Cartons: Delete Footnote 1 entirely and insert:

"1/ Code may be ink printed on any outside carton panel. Code may be embossed on any outside carton panel except the largest panels of the carton."

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